

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

**TENTATIVE ADDENDUM NO. 1
TO
ORDER NO. 2000-129
NPDES PERMIT NO. CA0109045
FOR THE
CITY OF SAN DIEGO
SOUTH BAY WATER RECLAMATION PLANT**

**DISCHARGE TO THE PACIFIC OCEAN
THROUGH THE SOUTH BAY OCEAN OUTFALL**

SAN DIEGO COUNTY

The California Regional Water Quality Control Board, San Diego Region (Regional Board) finds that:

1. On September 13, 2000, this Regional Board adopted Order No. 2000-129, National Pollutant Discharge Elimination System (NDPES) Permit No. CA0109045, Waste Discharge Requirements for the City of San Diego South Bay Water Reclamation Plant (SBWRP) Discharge to the Pacific Ocean through the South Bay Ocean Outfall (SBOO). The SBWRP began discharging through the SBOO in May 2002.
2. According to Section 13383(e) of the California Water Code, the Regional Board may, upon application by any affected person, or on its own motion, review and revise waste discharge requirements.
3. The State Water Resources Control Board adopted a revised California Ocean Plan (hereinafter referred to as the 2001 Ocean Plan) on November 16, 2000, which was approved by the United States Environmental Protection Agency on December 3, 2001. The 2001 Ocean Plan replaces the acute toxicity effluent limitation in "Table A", as contained in the 1997 version of the California Ocean Plan, with an acute toxicity water quality objective, and requires the use of marine test species instead of freshwater species when measuring compliance.
4. By letter dated August 8, 2002 the City requested changes to Order No. 2000-129, NPDES Permit No. CA0109045 to address the 2001 revision of the California Ocean Plan, inconsistencies between the monitoring and reporting requirements for the South Bay Water Reclamation Plant (SBWRP) and those of the City's E.W. Blom Point Loma Metropolitan Wastewater Treatment Plant (PLMWTP) and South Bay International Wastewater Treatment Plant (SBIWTP), and other miscellaneous administrative issues.

5. The issuance of waste discharge requirements for this discharge is exempt from the requirement of preparation of environmental documents under the California Environmental Quality Act [Public Resources Code, Division 13, Chapter 3, Section 21000 *et seq.*] in accordance with Section 13389 of the California Water Code.
6. The Regional Board has notified all interested parties of its intent to modify Order No. 2000-129, NPDES Permit No. CA0109045.
7. The Regional Board in a public hearing on November 13, 2002 heard and considered all comments pertaining to the modification of Order No. 2000-129, NPDES Permit No. CA0109045.

IT IS HEREBY ORDERED THAT Order No. 2000-129 be modified as follows:

1. **Section B.1.a. Effluent Limitations for Major Constituents and Properties of Wastewater** – Limitations for acute toxicity shall be deleted.
2. **Section B.1.b. Effluent on Toxic Materials for Protection of Marine Aquatic Life** – The following limitations for acute toxicity shall be added:

Constituent/ Property	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Acute Toxicity	Tua	--	3.3	--

3. **Section C.2.a. Water Quality Objectives for the Protection of Marine Aquatic Life** – The following water quality objective for acute toxicity shall be added:

Constituent/ Property	Units	6-Month Median	Daily Maximum	Instantaneous Maximum
Acute Toxicity	Tua	--	0.3	--

4. **Section D.4 Pretreatment Requirements, Annual Pretreatment Report** – The reporting date for the annual pretreatment report shall be changed from March 1 to April 1.

5. **Section F.20 Provisions** – The entire text of the section shall be replaced with the following:

Minimum Levels

- a. For each numeric effluent limitation, the discharger shall select one or more Minimum Levels (and their associated analytical methods) from Appendix II of the 2001 Ocean Plan. The “reported” Minimum Level is the Minimum Level (and its associated analytical method) chosen by the discharger for reporting and compliance determination from Appendix II.

The discharger must select from all Minimum Levels from Appendix II that are below the effluent limitation. If the effluent limitation is lower than all the Minimum Levels in Appendix II, then the discharger must select the lowest Minimum Level.

- b. Minimum Levels in Appendix II represent the lowest quantifiable concentration in a sample based on the proper application of method-specific analytical procedures and the absence of matrix interferences. Minimum Levels also represent the lowest standard concentration in the calibration curve for a specific analytical technique after the application of appropriate method-specific factors.

Common analytical practices may require different treatment of the sample relative to the calibration standard. Some examples of these practices are given in Chapter III.C.5.a of the Ocean Plan.

- c. Other factors may be applied to the Minimum Level depending on the specific sample preparation steps employed. For example, the treatment typically applied when there are matrix effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied during the computation of the reporting limit. Application of such factors will alter the reported Minimum Level.
- d. The discharger shall instruct its laboratories to establish calibration standards so that the Minimum Level (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. In accordance with the Ocean Plan, the discharger’s laboratory may employ a calibration standard lower than the Minimum Level in Appendix II.

6. **Section F.21 Provisions** – The entire text of the section shall be replaced with the following:

Sample Reporting Protocols

- a. The discharger shall report with each sample result the reported Minimum Level (selected in accordance with Part F.20 of this order and permit) and the laboratory's current MDL.
- b. The discharger shall also report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:
 - (1) Sample results greater than or equal to the reported Minimum Level shall be reported "as measured" by the laboratory (i.e., the measured chemical concentration in the sample);
 - (2) Sample results less than the reported Minimum Level, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified", or DNQ. The discharger shall write the estimated chemical concentration of the sample next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."); and
 - (3) Sample results less than the laboratory's MDL shall be reported a "Not Detected", or ND.

7. **Section F.22 Provisions** – The entire text of the section shall be replaced with the following:

Compliance Determination

Sufficient sampling and analysis shall be conducted to determine compliance with the effluent limitation.

- a. Compliance with Single-Constituent Effluent Limitations

Dischargers are out of compliance with the effluent limitation if the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level.

- b. Compliance with Effluent Limitations expressed as a Sum of Several Constituents

Dischargers are out of compliance with an effluent limitation which applies to the sum of a group of chemicals (e.g., PCBs) if the sum of the individual pollutant concentrations is

greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as ND or NDQ.

c. Multiple Sample Data Reduction

The concentration of the pollutant in the effluent may be estimated from the result of a single sample analysis or by a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses when all sample results are quantifiable (i.e., greater than or equal to the reported Minimum Level). When one or more sample results are reported as ND or DNQ, the central tendency concentration of the pollutant shall be the median (middle) value of the multiple samples. If, in an even number of samples, one or both of the middle values is ND or DNQ, the median will be the lower of the two middle values.

8. **Section F.30 Provisions, Compliance with Acute Toxicity Limitations** – The entire text of the section shall be replaced with the following:

The discharger shall conduct acute whole effluent toxicity (WET) tests on 24-hour composite effluent samples according to the frequency specified in the monitoring and reporting program. Samples shall be taken at the NPDES sampling location.

a. Test Species and Methods

The discharger shall conduct tests with the following vertebrate and invertebrate species for the first three suites of tests. After this screening period, monitoring shall be conducted using the most sensitive species.

(1) Vertebrate: Topsmelt, *Atherinops affinis*

(2) Invertebrate: Shrimp, *Mysidopsis bahia*

Every other year, the discharger shall re-screen, at different times from the prior year(s). The re-screening period may be limited to one month, if the results are the same as the previous three-month screening. If the results of the re-screening are different, the discharger shall conduct two additional months of screening, determine the most sensitive species, and continue to monitor with the most sensitive species.

The presence of acute toxicity shall be estimated as specified in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA/600/4-90-027F, 1993).

b. Definition of Acute Toxicity

Acute toxicity measures the lethal effect (i.e., mortality) to experimental test organisms exposed to an effluent or ambient waters compared to that of the control organisms. Test

results shall be reported in TU_a, where $TU_a = 100/96\text{-hr LC50}$. The LC50 is the percent waste giving 50% survival of test organisms. If specific identifiable substances in wastewater can be demonstrated by the discharger as being rapidly rendered harmless upon discharge to the marine environment, but not as a result of dilution, the LC50 may be determined after the test samples are adjusted to remove the influence of those substances. When a 96-hr LC50 cannot be measured because greater than 50% of test species survive in 100% waste, the toxicity shall be calculated as $TU_a = \log(100 - s)/1.7$, where s = percentage survival in 100% waste. If $s > 99$, TU_a shall be reported as zero.

c. Quality Assurance

Concurrent testing with reference toxicants shall be conducted.

If either of the reference toxicant tests or the effluent tests do not meet all test acceptability criteria as specified in the test methods manual, then the discharger must re-sample and re-test as soon as possible.

Control and dilution water should be receiving water or lab water, as appropriate. If the dilution water is different from the culture water, then culture water should be used in a second control.

9. **Section F.31 Provisions, Compliance with Chronic Toxicity Limitations** – The entire text of the section shall be replaced with the following:

The discharger shall conduct chronic WET tests on 24-hour composite effluent samples according to the frequency specified in the monitoring and reporting program. Samples shall be taken at the NPDES sampling location.

a. Test Species and Methods

The discharger shall conduct tests with the following vertebrate, invertebrate, and alga species for the first three suites of tests. After this screening period, monitoring shall be conducted using the most sensitive species.

- (1) Vertebrate: Topsmelt, *Atherinops affinis* (survival and growth).
- (2) Invertebrate: Red abalone, *Haliotis rufescens* (larval development test).
- (3) Alga: Giant kelp, *Macrocystis pyrifera* (germination and germ-tube length test).

Every other year, the discharger shall re-screen, at different times from the prior year(s). The re-screening period may be limited to one month, if the results are the same as the previous three-month screening. If the results of the re-screening are different, the discharger shall conduct two additional months of screening, determine the most sensitive species, and continue to monitor with the most sensitive species.

The presence of chronic toxicity shall be estimated as specified in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95-136, 1995).

b. Definition of Chronic Toxicity

Chronic toxicity measures a sublethal effect (e.g., reduced growth, reproduction) to experimental test organisms exposed to an effluent or ambient waters compared to that of the control organisms. Test results shall be reported in TU_c , where $TU_c = 100/NOEC$. The no observed effect concentration (NOEC) is the highest concentration of toxicant to which organisms are exposed in a chronic test, that causes no observable adverse effect on the test organisms (e.g., the highest concentration of toxicant to which the values for the observed responses are not statistically significantly different from the controls).

c. Quality Assurance

A series of five dilutions and a control will be tested. The series shall include the instream waste concentration (IWC), two dilutions above the IWC, and two dilutions below the IWC (e.g., 12.5, 25, 50, 75 and 100 percent effluent, where $IWC = 50$). The IWC for this discharge is 0.49 percent effluent.

Concurrent testing with reference toxicants shall be conducted.

If either of the reference toxicant tests or the effluent tests do not meet all test acceptability criteria as specified in the test methods manual, then the discharger must re-sample and re-test as soon as possible.

Control and dilution water should be receiving water or lab water, as appropriate. If the dilution water is different from the culture water, then culture water should be used in a second control.

10. Attachment No. 3, Standard Provisions – The entire attachment shall be replaced with the version attached to this Addendum.

11. Attachment No. 4, 40 CFR Standard Provision References – The entire attachment shall be replaced with the version attached to this Addendum.

Monitoring and Reporting Program No. 2000-129

12. Section IV. Effluent Monitoring – The minimum frequency of monitoring for Acute Toxicity shall be changed from weekly to monthly.

13. **Section VII. Endnotes, No. 4** – Reference to the 1997 California Ocean Plan shall be changed to the 2001 California ocean Plan.

I, John H. Robertus, Executive Officer, do hereby order the foregoing changes made on November 13, 2002.

TENTATIVE_____

JOHN H. ROBERTUS
Executive Officer